AMS 597.01  Statistical Computing
Spring, 2020

INSTRUCTOR: Professor Wei Zhu
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OFFICE HOURS: Tuesday & Thursday 11:30AM -12:30PM (via Zoom)
CLASS: Tuesday/Thursday 10:00-11:20 AM; Math S-235 (via Zoom)
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OFFICE HOURS: Tuesday 1:00-3:00PM (via Zoom)

Textbooks:
1. Introductory Statistics with R (2nd ed.), by Peter, Dalgaard, Springer. ISBN #9780387790534

Course Objectives:
This course introduces graduate students to some basic elements of statistical computing and computational statistics. Students are expected to know statistical concepts including ANOVA, regression analysis, etc., before taking the course.

This course is divided into two main parts. The first part covers R implementation of important statistical models. SAS implementation will be provided as part of reading materials. The second part covers computational statistics including numerical analysis, Monte Carlo methods, bootstrap, permutation, etc.

Tests:
Midterm Exam: Tuesday March 24, 2020, in class.
Quizzes will be given, all open book, independent work, in class, via Zoom - 3 lowest scores dropped.
Final Exam: Friday May 15, 2020, 11:15AM-1:45 PM; in class (Open book exam, must work on it independently, via Zoom).
Grading:
Midterm Exam 30%
Group Project: 20%
Quizzes 30%
Homework 20%
Personal Project: 20%
Final Exam 30%

Required Syllabus Statements

The University Senate Undergraduate and Graduate Councils have authorized that the following required statements appear in all teaching syllabi (graduate and undergraduate courses) on the Stony Brook Campus.

Student Accessibility Support Center Statement

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Student Accessibility Support Center, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity Statement

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Further information about most academic matters can be found in the Undergraduate Bulletin, the
Undergraduate Class Schedule, and the Faculty-Employee Handbook.